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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,994	10/02/2003	Craig S. Erickson	50606/JEJ/M930	9246
23363	7590	02/25/2005	EXAMINER	
CHRISTIE, PARKER & HALE, LLP PO BOX 7068 PASADENA, CA 91109-7068			HUNNINGS, TRAVIS R	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/677,994

Applicant(s)

ERICKSON ET AL.

Examiner

Travis R Hunnings

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-16, 19-23 and 25 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 17, 18 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because of the following informalities: the word "amplified" should be changed to "amplifier" in line 21 of page 15.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-5, 12 and 14-16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yu (US Patent 5,081,627).

Regarding claim 1, Yu discloses *Status And Activity Monitor For Contention Type Local Area Networks* that has the following claimed subject matters:

The claimed cable comprising one or more wires is met by the cable including a plurality of wires (col2 15-32 and 37-68);

The claimed cable comprising at least one connector connected to the wires is met by the connector 18 in figure 3;

The claimed connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic is met by the sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal is met by the

illuminatable visible indicator that is illuminated in response to the trigger output signal (col2 15-32);

The claimed detection circuitry comprising driving circuitry coupled to at least one said wire, said at least one wire carrying a data signal is met by the signal sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed transistor coupled to the driving circuitry and the traffic indicator is met by the transistors U2-U4 as seen in figure 4;

The claimed driving circuitry wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal which is used to drive the traffic indicator is met by the transistor being used to do the signal detection, once a signal is detected the transistor sends a signal to the rest of the circuitry that in turn illuminates the illuminatable device (col4 21-56).

Regarding claim 3, Yu discloses all of the claimed limitations. The claimed cable wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering is met by the illuminatable device being an LED (col2 49-68).

Regarding claim 4, Yu discloses all of the claimed limitations. The claimed cable wherein at least one of the wires carries power, and the traffic indicator receives power from said at least one of the wires that carries power is met by the cable including a

plurality of wires including one providing power from the first device to the second device along with means to provide power from the cable to the sampling and triggering means (col2 37-48).

Regarding claim 5, Yu discloses all of the claimed limitations. The claimed cable wherein the driving circuitry comprises a diode is met by the LEDs of the driving circuitry. The LEDs, while they do not directly provide the driving portion of the circuit, they are indeed connected with the driving circuitry and would therefore conventionally be considered to be a part of the driving circuitry as interpreted herein.

Regarding claim 12, Yu discloses the following claimed subject matters:

The claimed first plug for interfacing with the cable is met by the plug shown in figure 3, element 24;

The claimed second plug for interfacing between the first plug and an electronic device is met by the plug shown in figure 3, element 20;

The claimed connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic is met by the sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal is met by the

illuminatable visible indicator that is illuminated in response to the trigger output signal (col2 15-32);

The claimed detection circuitry comprising driving circuitry coupled to at least one said wire, said at least one wire carrying a data signal is met by the signal sampling and triggering means connected to the connecting wire and producing a trigger output when a binary signal is sensed on the cable (col2 15-32);

The claimed transistor coupled to the driving circuitry and the traffic indicator is met by the transistors U2-U4 as seen in figure 4;

The claimed driving circuitry wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal which is used to drive the traffic indicator is met by the transistor being used to do the signal detection, once a signal is detected the transistor sends a signal to the rest of the circuitry that in turn illuminates the illuminatable device (col4 21-56).

Regarding claim 14, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 15, the claim is interpreted and rejected as claim 4 stated above.

Regarding claim 16, the claim is interpreted and rejected as claim 5 stated above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 13 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Oliphant et al. (Oliphant; US Patent 6,483,712).

Regarding claim 2, Yu discloses all of the claimed limitations except for the claimed cable wherein the cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables. Oliphant discloses *Illumination Electrical Jack System* that teaches a data signaling system that can be utilized in different kind of cables, including USB cables (col6 38-52). Allowing the device to be used in USB and other cables would increase the marketability of the device because it would be used in many different applications. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Oliphant to be used in a USB cable.

Regarding claim 13, the claim is interpreted and rejected as claim 2 stated above.



Regarding claim 25, Yu discloses all of the claimed limitations except for the claimed circuitry being housed in a hub/switch. Oliphant teaches a cable traffic indicator system that can be housed in a housing that has multiple sockets, which show cable traffic indication (col4 8-10). Putting the circuitry of Yu in a housing as disclosed by Oliphant would allow multiple cables to be connected to a particular device, each of which having an indication of traffic along the cable. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Oliphant to contain the detection circuitry in a hub/switch housing.

7. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Yeh et al. (Yeh; US Patent 6,165,006).

Regarding claim 8, Yu discloses all of the claimed limitations except for the claimed cable wherein said at least one connector comprises an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry. Yeh discloses *Cable Connector* that has an LED for indicating cable traffic and has an inner and outer casing disposed as claimed and is shown in figure 3 (col2 62-67 and col3 1-13). Modifying the casing of Yu as taught by Yeh would allow the device to be used for the particular

purpose of connecting to PCMCIA cards and would allow the device to be used by more customers, especially those using laptops that commonly have PCMCIA cards.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Yeh to have the connector comprise an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry.

Regarding claim 9, Yu discloses all of the claimed limitations except for the claimed cable wherein the inner casing has an opening formed thereon for allowing light generated by the traffic indicator to exit the inner casing. Yeh teaches an inner casing having an opening comprised by the ends of a light pipe that allows the light of the traffic indicator to exit the inner casing (col3 22-33). Modifying the casing of Yu to include a hole that allows the light from the traffic indicators to exit the inner casing would allow the user to better see the light emitted by the device. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Yeh to include an opening in the inner casing of the connector.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Yeh and further in view of Oliphant.

Regarding claim 10, Yu and Yeh disclose all of the claimed limitations except for the claimed cable wherein at least a portion of at least one of the inner casing and the outer casing is either transparent or semi-transparent to allow at least a portion of light generated by the traffic indicator to exit the connector. Oliphant teaches a plug connector that is at least partially transparent to allow at least some light to be transmitted through the plug. Modifying the casing of Yu and Yeh to be at least partially transparent to allow the light from the traffic indicators to be seen through the casing would allow the user to better see the light emitted by the device. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu and Yeh according to the teachings of Oliphant to make the casing at least partially transparent to allow a portion of the light to escape.

9. Claims 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Riley et al. (Riley; US Patent 6,456,204).

Regarding claim 11, Yu discloses all of the claimed limitations except for the claimed cable wherein the driving circuitry comprises an amplifier for amplifying the data signal. Riley discloses *Data Transfer Indicator Circuit* that teaches using an amplifier to pull the data off the signal line without interfering with the signal being transmitted (col2 10-17). It would be beneficial to add an amplifier to the device of Yu in order to preserve the signal being sent across the cable when trying to detect it's presence.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Riley to add an amplifier to the circuitry to amplify the data signal.

Regarding claim 19, the claim is interpreted and rejected as claim 11 stated above.

10. Claims 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Diamant et al. (Diamant; US Patent 5,969,632).

Regarding claim 20, Yu discloses the claimed traffic detector comprising a traffic indicator capable of receiving the detection signal and of providing a visual indication of the traffic responsive to the detection signal by the sampling and triggering means detecting a signal and providing a trigger signal to an illuminatable device to provide visual indication of traffic on the cable (col2 15-32).

However, Yu does not specifically disclose the claimed traffic detector comprising detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires and of generating a detection signal in response. Diamant discloses *Information Security Method And Apparatus* that teaches detecting the communication signal on a cable by sensing the electromagnetic field produced in the vicinity of the communication cable (col12 1-16). Modifying the circuitry of Yu to be able to detect the electromagnetic field produced by data being sent across a cable would be

beneficial because the device would not have to be intrusive to the cable itself because it would be able to be near the cable and detect the electromagnetic field and produce a traffic detection signal in response to that detection. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu according to the teachings of Diamant to be able to detect electromagnetic radiation generated by the traffic in at least one of the wires in the cable.

Regarding claim 22, Yu and Diamant disclose all of the claimed limitations. The claimed cable wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering is met by the illuminatable device being an LED (col2 49-68).

Regarding claim 23, the claim is interpreted and rejected as claim 20 stated above.

11. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yu in view of Diamant and further in view of Oliphant.

Regarding claim 21, Yu and Diamant disclose all of the claimed limitations except for the claimed cable wherein the cable is selected from a group consisting of USB,

FireWire, COM, LPT and SCSI cables. Oliphant teaches a data signaling system that can be utilized in different kind of cables, including USB cables (col6 38-52). Allowing the device to be used in USB and other cables would increase the marketability of the device because it would be used in many different applications. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Yu and Diamant according to the teachings of Oliphant to be used in a USB cable.

#### ***Allowable Subject Matter***

12. Claims 6, 7, 17, 18 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arndt, US 3,471,784

Buttimer, US 4,945,341

Steward, US 6,765,479

Lebby et al. US 5,225,816

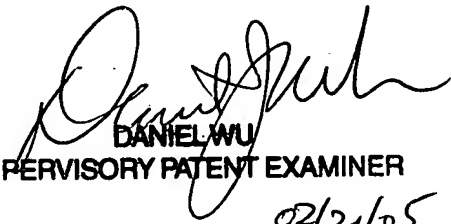
O'Callaghan et al. US 6,256,318

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis R Hunnings whose telephone number is (571) 272-3118. The examiner can normally be reached on 8:00 am - 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J Wu can be reached on (571) 272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRH

  
DANIEL WU  
SUPERVISORY PATENT EXAMINER  
02/21/05